



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/524,551

09/28/2005

Axel Wistmuller

7-4221

1423

22209

7590

05/12/2008

HOOKER & HABIB, P.C.
100 CHESTNUT STREET
SUITE 304
HARRISBURG, PA 17101

EXAMINER

ALHIJA, SAIF A

ART UNIT

PAPER NUMBER

2128

MAIL DATE

DELIVERY MODE

05/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,551	Applicant(s) WISTMULLER, AXEL	
	Examiner SAIF A. ALHIJA	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2128

DETAILED ACTION

1. Claims 18-38 have been presented for examination.

Claims 1-17 have been cancelled.

Abstract

2. The abstract of the disclosure is objected to because is greater than 150 words. Correction is required. See MPEP § 608.01(b).

Specification

3. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f). If the references, listed on pages 55-58 of the specification of the instant application, are not intended to be incorporated Applicants are requested to provide an IDS listing the references presented in the specification as per the duty to disclose provided in Applicants Oath.
4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use, specifically since there appears to be a Summary at the end of the specification, page 57.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

Art Unit: 2128

- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Drawings

5. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). The Examiner notes that a figure, page 2 of the specification of the instant application, has been improperly included in the specification rather than in a separate drawing.

Claim Objections

6. **Claims 33-36 are objected** to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 33-36 represent an intended use of their respective parent claims and therefore are not afforded patentable weight and do not further limit their respective parents. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

MPEP 2106 recites:

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result" State Street 149 F.3d at 1373, 47 USPQ2d at 1601-02. A process that consists solely of the manipulation of an abstract idea is not concrete or tangibles. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed.Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459.

Art Unit: 2128

7. **Claims 18-38 are rejected** under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

i) The Courts have found that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. As the Supreme Court has made clear, "[a]n idea of itself is not patentable," *Rubber-Tip Pencil Co. v. Howard*, 20 U.S. (7 Wall.) 498, 507 (1874); taking several abstract ideas and manipulating them together adds nothing to the basic equation. *In re Warmerdam*, 31 USPQ2d 1754 (Fed. Cir. 1994).

The language of the claims indicate that the claims are directed merely to an abstract idea that is not tied to a technologic art, environment, or machine that would conclude with a tangible result to form the basis of statutory subject matter under 35 USC 101. The claimed methods appear to be no more than manipulation of mathematical equations and data manipulation without any application or tangible output, therefore the claims are rejected under 35 USC 101.

ii) Claims 23-24, 26-27, and 37-38 further represent a mixing of statutory categories. The claims depend on a method but recite a computer program product or data processing device.

iii) With respect to the claimed computer program product, paragraph 27 of the specification of the instant application states "signals transmitted in a network." Signals are non-statutory and therefore the claimed computer program products are rendered non-statutory.

Appropriate correction is required.

All claims dependent upon a rejected base claim are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Art Unit: 2128

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 18-38 are rejected** under 35 U.S.C. 102(b) as being clearly anticipated by **Tsuruta et al.**

“Hypercolumn Model: A Combination Model of Hierarchical Self-Organizing Maps and Neocognitron for Image Recognition.”

Regarding Claim 18:

The reference discloses A method of processing data for the mapping of input data to output data, the method to be executed on a data processing device and comprising the following steps:

- (a) providing data objects to be processed as input data; **(Section 4.1.1, “target objects as input data”)**
- (b) processing provided data objects by using a topology-preserving mapping, by: **(Section 4.1.1, “top layer preserves the topographic order”)**
 - (i) ordering neurons in ordering space, according to a given pattern; **(Section 4.1.2, SOM and HCM and neuron)**
 - (ii) assigning codebook objects in outcome space to the neurons; **(Section 3.1, HCM and codebooks)**
 - (iii) processing codebook objects according to the calculation rule of a topology-preserving mapping, by use of data objects of the exploration space; **(Section 3.1, code-book vectors and preserving the topographic order of continuous locale)** and
 - (iv) outputting the processed codebook objects as output data; said method characterized by comprising at least one of the following steps; **(Figure 9c and 9d, output)**
- (c) determining the order of neurons in the ordering space by using at least a part of the provided data objects, and

Art Unit: 2128

(d) providing data objects, which are required for the data processing, which are independent of the input data to be processed and which are used as data objects of the exploration space. **(Section 2.1, “A characteristic of the SOM is that the distance between neurons and the neighborhood for each neuron are defined independently of the data space.”)**

Regarding Claim 19:

The reference discloses The method of claim 18, wherein the data objects to be processed are distance objects. **(Section 2.1, equation 1, Euclidean distance)**

Regarding Claim 20:

The reference discloses The method of claim 18, wherein data objects in the ordering space are ordered irregularly. **(Figure 2)**

Regarding Claim 21:

The reference discloses The method of claim 18, wherein data objects of at least one of the ordering space, exploration space, and outcome space are used which comply with at least one of the following conditions: (A) they satisfy a non-Euclidian geometry; (B) they are distance objects to data objects of a local neighborhood of data objects; **(Section 2.1, “A characteristic of the SOM is that the distance between neurons and the neighborhood for each neuron are defined independently of the data space. “)** (C) they represent data distributions with a fractal dimension; (D) they represent data distributions of non-orientable surfaces in the sense of differential geometry; (E) they are added, omitted or modified during the training processes or a series of training processes of the topology-preserving mapping, in particular for distance objects in the ordering space; (F) they are influenced by additional constraints; (G) they are saved or processed in local units; and (H) they are added, omitted or modified after completion of the training of the topology-preserving mapping.

Regarding Claim 22:

The reference discloses The method of claim 18, wherein at least one of the calculation rule of the topology-preserving mapping and at least one parameter of this calculation rule: is chosen depending on the respective processed data object of at least one of the ordering space, exploration space and outcome space; is modified during the training process or over several training processes of the topology-preserving mapping, in particular depending on the respective processed data object of at least one of the ordering space, exploration space, and outcome space; and is influenced by additional constraints. **(Section 2.1, “In the learning phase, each time a training data item is input, the winner is selected according to Eq. (1) and is trained according to the following equations:”)**

Regarding Claim 23:

The reference discloses A data processing device for carrying out the method of claim 18. **(See rejection for claim 18)**

Regarding Claim 24:

The reference discloses A computer program product, which is stored in a memory medium and contains software code segments, configured for carrying out the method of claim 18 if the computer program product is run on a data processing device. **(See rejection for claim 18)**

Regarding Claim 25:

The reference discloses A method of processing data for the mapping of data objects to be processed to distance objects, the method to be executed on a data processing device and comprising the following steps:

- (a) providing data objects to be processed; **(Section 4.1.1, “target objects as input data”)**
- (b) calculating distances between the data objects to be processed as distance objects; **(Section 2.1, equation 1, Euclidean distance)** and
- (c) outputting these distance objects as output data; said method characterized by the step of: **(Figure 9c and 9d, output)**

Art Unit: 2128

(d) calculating the distances by use of at least one of statistical learning methods (**Section 2.1, “In the learning phase, each time a training data item is input, the winner is selected according to Eq. (1) and is trained according to the following equations:”**), local models, methods of inferential statistics, and one of the following specific computation methods: (A) Levenstein Measure; (B) Mutual Information; (C) Kullback-Leibler Divergence; (D) coherence measures employed in signal processing, in particular for biosignals; (E) LPC cepstral distance; (F) calculation methods that relate the power spectra of two signals, such as the Itakura-Saito Distance; (G) the Mahalanobis-Distance; (**Page 50, “Mahalanobis distance”**) and (H) calculation methods relating to the phase-synchronization of oscillators.

Regarding Claim 26:

The reference discloses A data processing device for carrying out the method of claim 25. (**See rejection for claim 25**)

Regarding Claim 27:

The reference discloses product is run on a data processing device. (**See rejection for claim 25**)

Regarding Claim 28:

The reference discloses A method of processing data for the determination of the cluster validity, the method to be executed on a data processing device and comprising the following steps:

- (a) providing data objects as input data; (**Section 4.1.1, “target objects as input data”**)
- (b) providing distance objects between these data objects; (**Section 2.1, equation 1, Euclidean distance**)
- (c) providing an assignment of the data objects to be processed to groups by: (**Table 2, “Neuron groups”**)
- (i) processing provided data objects by using a topology-preserving mapping, by: (**Section 4.1.1, “top layer preserves the topographic order”**)
 - (1) ordering neurons in ordering space, according to a given pattern; (**Section 4.1.2, SOM and HCM and neuron**)
 - (2) assigning codebook objects in outcome space to the neurons; (**Section 3.1, HCM and codebooks**)

Art Unit: 2128

(3) processing codebook objects according to the calculation rule of a topology-preserving mapping, by use of data objects of the exploration; (**Section 3.1, code-book vectors and preserving the topographic order of continuous locale**)

(4) outputting the processed codebook objects as output data; (**Figure 9c and 9d, output**)

(ii) at least one of the following substeps (1) and (2):

(1) determining the order of neurons in the ordering space by using at least a part of the provided data objects;

(2) providing said data objects that are independent of the input data to be processed and which are used as data objects of the exploration space; (**Section 2.1, “A characteristic of the SOM is that the distance between neurons and the neighborhood for each neuron are defined independently of the data space.”**) and

(d) outputting a measure of the quality of this assignment as output data, said method characterized by the step of: (**Page 56, top right, “The quality of the topographic mapping was estimated using two parameters D1 and D2.”**)

(e) calculating the measure of the quality of the assignment by employing at least a part of the provided distance objects. (**Page 56, top right, “The quality of the topographic mapping was estimated using two parameters D1 and D2.”**)

Regarding Claim 29:

The reference discloses The method of claim 28 wherein step (e) comprises the steps of:

(f) providing data objects to be processed as input data; (**Section 4.1.1, “target objects as input data”**)

(g) processing provided data objects by using a topology-preserving mapping; (**Section 4.1.1, “top layer preserves the topographic order”**) and

(h) applying a cost function of a method for the clustering of dissimilarity data, wherein the measure of the quality of the assignment is calculated by using at least one set of the set of substeps (h) (i) and h(ii) and the set of substeps (h) (iii)(h) (vi) and a cost function of a method for the clustering of dissimilarity data: (**Page 56, top right, “The quality of the topographic mapping was estimated using two parameters D1 and D2. Page 54, bottom left, computational cost**)

Art Unit: 2128

(i) processing provided dissimilarity data objects by using a topology-preserving mapping, by: **(Section 4.1.1, “top layer preserves the topographic order”)**

(1) ordering neurons in ordering space, according to a given pattern; **(Page 50, bottom left, “pattern recognition”)**

(2) assigning codebook objects in outcome space to the neurons; **(Section 3.1, HCM and codebooks)**

(3) processing codebook objects according to the calculation rule of a topology-preserving mapping, by use of data objects of the exploration; **(Section 3.1, code-book vectors and preserving the topographic order of continuous locale)**

(4) outputting the processed codebook objects as output data; (ii) at least one of the following substeps (1) and (2) **(Figure 9c and 9d, output)**

(1) determining the order of neurons in the ordering space by using at least a part of the provided dissimilarity data objects; and

(2) providing said dissimilarity data objects that are independent of the input data to be processed and which are used as data objects of the exploration space; **(Section 2.1, “A characteristic of the SOM is that the distance between neurons and the neighborhood for each neuron are defined independently of the data space.”)** and

(iii) providing dissimilarity data objects to be processed; **(Page 50, top left, images with large variations)**

(iv) calculating distances between the dissimilarity data objects to be processed as distance objects; **(Section 2.1, “In the learning phase, each time a training data item is input, the winner is selected according to Eq. (1) and is trained according to the following equations:”)**,

(v) outputting these distance objects as output data; **(Figure 9c and 9d, output)**

(vi) calculating the distances by use of at least one of statistical learning methods, local models, methods of inferential statistics, and one of the following specific computation methods: (A) Levenstein Measure; (B) Mutual information; (C) Kullback-Leibler Divergence; (D) coherence measures employed in signal processing, in particular for biosignals; (E) LPC cepstral distance; (F) calculation methods that relate the power spectra of two signals, such as the Itakura-Saito Distance; (G) the Mahalanobis-Distance; **(Page 50, “Mahalanobis distance”)** and (II) calculation methods relating to the phase-synchronization of oscillators.

Art Unit: 2128

Regarding Claim 30:

The reference discloses The method of claim 28, which is carried out repeatedly, wherein the output data of a previous run of the procedure are entered as input data of a subsequent run of the procedure. **(Figure 4, subnetworks)**

Regarding Claim 31:

The reference discloses The method of claim 28, comprising the step of: (f) determining the quality of the output data and outputting this determined quality. **(Page 56, top right, “The quality of the topographic mapping was estimated using two parameters D1 and D2.”)**

Regarding Claim 32:

The reference discloses The method of claim 31 wherein the quality is determined by at least one of: (A) calculating measures for topology-preservation or distribution-preservation; **(Section 4.1.1, “top layer preserves the topographic order”)** (B) calculating distortion measures; (C) relating the distance of data objects in the ordering space to the distances of corresponding data objects in at least one of the outcome space and the exploration space, in particular by plotting these data objects in a distance plot; (D) graphically displaying data objects of at least one of the exploration space, the outcome space and the ordering space, in particular by applying these data objects to at least one of an exploration, outcome and ordering plot; (E) graphically displaying data objects calculated from data objects of at least one of the exploration space, outcome space and ordering space, in particular by plotting these object data in at least one of an exploration plot, outcome plot and ordering plot; (F) calculating and outputting the mapping error for at least one of an interpolation, extrapolation, approximation and supervised learning, in particular by forward and backward projection; and (G) sequential processing of data objects.

EXAMINERS NOTE: Claims 33-36 represent an intended use and are not afforded patentable weight. The

Examiner notes a recitation of the intended use of the claimed invention must result in a structural difference

Art Unit: 2128

between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding Claim 33:

The reference discloses The method of claim 31, wherein the determined quality is used for at least one of: (A) adding, omitting or modifying data objects of at least one of the exploration space, the outcome space and the ordering space of the topology-preserving mapping; (**Section 4.1.1, “top layer preserves the topographic order”**) and (B) modifying at least one of the calculation rule of the topology-preserving mapping and its parameters, in particular depending on data objects of at least one of the exploration, outcome and ordering space.

Regarding Claim 34:

The reference discloses The method of claim 28 which is used for at least one of the following: (A) for dimension determination, in particular for the determination of fractal dimensions; (B) for non-linear embedding, in particular of non-metric data and/or dissimilarity data; (C) for clustering, in particular of non-metric data and/or dissimilarity data; (D) for determining the cluster validity, in particular of dissimilarity data and/or non-metric data; (E) for supervised learning, in particular on non-metric data or dissimilarity data; (F) for the registration of data sets; (G) for active learning; (**Section 2.1, “In the learning phase, each time a training data item is input, the winner is selected according to Eq. (1) and is trained according to the following equations:”**) (H) for sorting; (I) for the optimization, in particular for non-metric data or dissimilarity data; (J) for finding solutions of Traveling Salesman Problems and equivalent problems, in particular non-metric Traveling Salesman Problems; (K) for the calculation of hyper-manifolds; (L) for interpolation, extrapolation, or approximation; (M) for relevance learning; (N) for the visualization of graphs; (O) for graph layout; and (P) for the construction of self-developing, self-repairing, and/or self-reproducing systems, in particular of technical systems.

Regarding Claim 35:

The reference discloses The method of claim 34 which is used for at least one of the following: (Q) dimension determination and non-linear embedding; (R) non-linear embedding and calculation of hyper-manifolds;

Art Unit: 2128

(s) clustering and determination of cluster validity; (**Page 49, Summary, "clustering method"**) and (T) non-linear embedding and clustering.

Regarding Claim 36:

The reference discloses The method of claim 34 which is used for at least one of the following: (Q) the molecular dynamics simulation, in particular where constraints, in particular rigid spatial relations, in the molecule or its surroundings, are modeled as distances of the neurons in the ordering space; (R) the problem solving in the field of robotics, in particular when constraints, notably rigid special relations, in the robot or its surroundings, are modeled as distances of the neurons in the ordering space; and (S) data in the fields of economics, finances, medicine, humanities, natural sciences, or technology, in particular in the fields of circuit design, bio-informatics, robotics, meteorology, image processing; (**Title, "Image Recognition"**) (T) in the field of data-mining, in particular text-mining; (U) in the field of security technology, specifically flight or access security; (V) in the field of logistics, in particular traffic control and maintenance systems; and (W) in the fields of communication technology or cryptology.

Regarding Claim 37:

The reference discloses A data processing device for carrying out the method of claim 28. (**See rejection for claim 28**)

Regarding Claim 38:

The reference discloses A computer program product, which is stored in a memory medium and contains software code segments, configured for carrying out the method of claim 28 if the computer program product is run on a data processing device. (**See rejection for claim 28**)

Examiners Remarks

9. i) Examiner has cited particular columns and line numbers in the references applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is

Art Unit: 2128

respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

ii) The Examiner respectfully requests, in the event the Applicants choose to amend or add new claims, that such claims and their limitations be directly mapped to the specification, which provides support for the subject matter. This will assist in expediting compact prosecution.

iii) Further, the Examiner respectfully encourages Applicants to direct the specificity of their response with regards to this office action to the broadest reasonable interpretation of the claims as presented. This will avoid issues that would delay prosecution such as limitations not explicitly presented in the claims, intended use statements that carry no patentable weight, mere allegations of patentability, and novelty that is not clearly expressed.

iv) The Examiner also respectfully requests Applicants, in the event they choose to amend, to supply a clean version of the presented claims in addition to the marked-up copy in order to avoid potential inaccuracies with the version of the claims that would be examined.

Conclusion

10. All Claims are rejected.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saif A. Alhija whose telephone number is (571) 272-8635. The examiner can normally be reached on M-F, 11:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. *Informal or draft communication, please label PROPOSED or DRAFT*, can be additionally sent to the Examiners fax phone number, (571) 273-8635.

Art Unit: 2128

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAA

April 25, 2008

/Kamini S Shah/
Supervisory Patent Examiner, Art Unit 2128